

**COPPER BRAIDS & LAMINATED CONNECTORS**

**MANUFACTURERS & EXPORTES**



**Amiable Impex**

understands your values



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### FlatBraids

Highly Cu flexible pressed, Bare, Tin & Silver Coated. Flat Braid is mainly used for Earthing Connection & terminalsetc.



Range	4 sq.mm andabove
WireDiameter	0.05mm (47swg) to0.3mm(30swg)
Material	ElectrolyticCopper
Finish	Bare Copper / Tinned /Silver

### Flexible Connectors/Flexible EarthStraps



Range	4 sq.mm andabove
WireDiameter	0.05mm (47swg) to0.3mm(30swg)
Material	ElectrolyticCopper
Finish	Bare Copper / Tinned /Silver

### RoundBraids

Highly Cu flexible bare, tin & silver coated. Round braids are used for carbonbrushes, relays, gaskets, telecom, automobiles , earthingetc.



Range	4 sq.mm andabove
WireDiameter	0.51 to 3mm
Material	ElectrolyticCopper
Finish	Bare Copper / Tinned /Silver

### Flexible StrandedRopes



Range	4 sq.mm andabove
WireDiameter	0.51 to 3mm
Material	ElectrolyticCopper
Finish	Bare Copper / Tinned /Silver

### Bare Stranded Copper Conductors

(In PVC also Available)

Soft Drawn Cu Conductor to BS EN -60228



Size mm2	StrandingNo /mm	ProductCode
6	7 /1.04	E12-SCC-6
16	7 /1.70	E12-SCC-16
25	7 /2.14	E12-SCC-25
35	7 /2.52	E12-SCC-35
50	19 /1.78	E12-SCC-50
70	19 /2.14	E12-SCC-70
95	19 /2.52	E12-SCC-95
120	37 /2.03	E12-SCC-120
150	37 /2.25	E12-SCC-150
185	37 /2.52	E12-SCC-185
240	61 /2.24	E12-SCC-240

## COPPER LAMINATED FLEXIBLE CONNECTORS

### Laminated Copper Flexibles

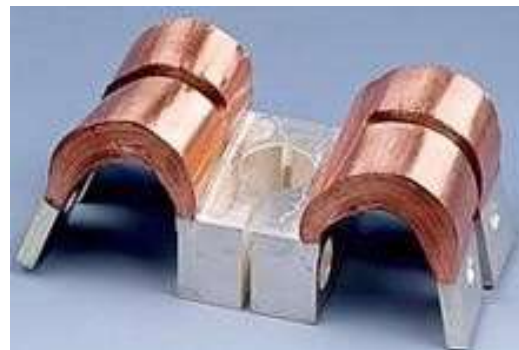
We offer the finest quality Laminated Copper Flexible Connectors that are manufactured by stacking several foils of electrolytic copper and then applying high current under high pressure. These types of flexible connectors are commonly used as the flexible expansion joints for connecting the bus bars in different applications.

#### Features:

- Endurable and LongLasting
- Available in differentsizes
- Easy touse

#### IndustryUse:

- Switchgearindustries
- Powerplants
- CathodicProtection
- BusDucts
- Transformer
- V.C.B.
- Resistance weldingengineering
- ElectricLocomotives
- GalvanoEngineering
- Furnaces



These Laminated Copper Flexible Connections are produced from high conductivity electrolytic grade copper foils/sheets. We follow various methods to produce these flexiblejumpers. The method used is describedbelow:

#### PressWelding

In Press welding, individual Copper strips are fused (one homogeneous mass) together by applying direct current and pressure without the use of any foreign material. It results in producing a solid palm with properties of a plain busbar of the same cross section. This method assures minimum resistance thus increasing the product life & reduction in downtime. Welding provides the best mechanical & electrical properties at high temperatures. These are available in all sizes covering the desired cross section area. Slotted holes can be provided up onrequest.

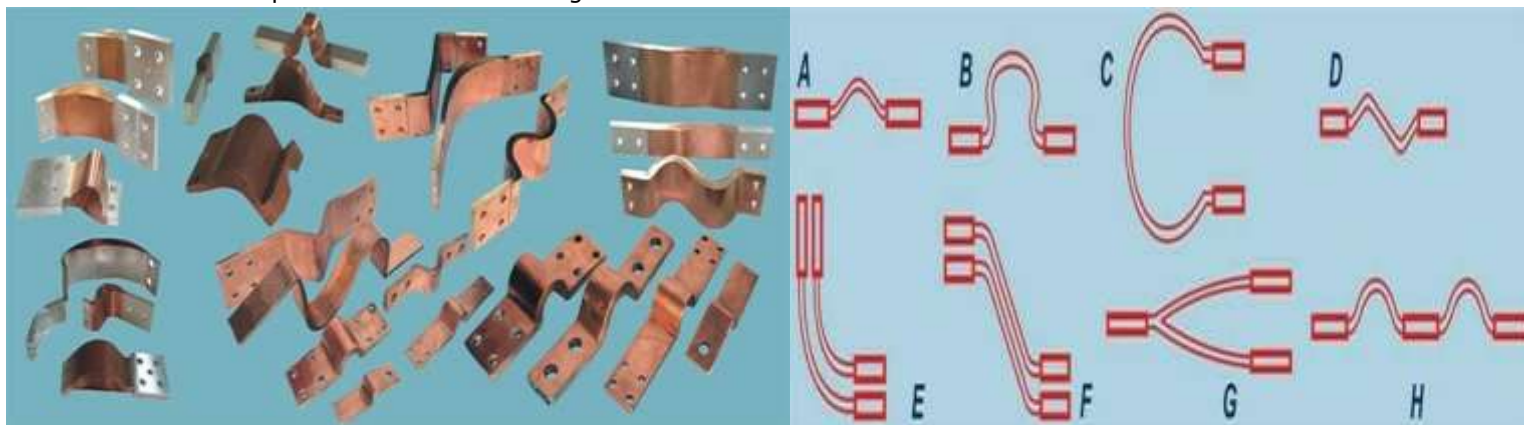
**Copper laminated flexible Connectors** consist of several stacked strips with riveted or welded contact areas. They have a constant cross-section over the whole length. Busbars and laminated connectors with the same cross-section can be loaded with the same current. A part of laminated connectors are utilized as flexible expansion connectors in order to connect busbars of switch gears, transformers, generators, etc. Thanks to their elasticity, thermal expansion of busbars is beingcompensated.

Most of the parts are being used as expansion connectors to prevent damages by vibration caused by switch gear operations. Another part is utilised as flexible components inside parts of machines (Like welding machines or switch gears). These kind of connectors have to realise movement inside machines and switch gears. To manufacture suitable connectors for the variable applications we have different methods ofproduction.

## COPPER LAMINATED FLEXIBLE JUMPERS

**Copper laminated flexible jumpers** are manufactured by stacking several foils of electrolytic copper and then applying high current under high pressure. This is a special metal diffusion whereby the metal itself melts and forms homogenous bonds thus giving a very negligible, almost nil, mill volt drop across the connector, thereby reducing the temperature rise and increasing the current carrying capacity of the jumper. In this process, no filler metal is used to join two layers together. They have a constant cross section over whole length. The current carrying capacity of solid bus bar and copper laminated jumper manufactured by this process is the same. Therefore **Laminated Copper flexible Jumper** jumpers are a substitute for solid busbar.

**Copper flexible jumpers are manufactured in all possible shapes & sizes as per customer's requirements.** Some of various shapes are shown in the images.



**Copper laminated flexible jumpers** are manufactured by laminating high conductivity, electrolytic grade copper foils. These laminated foils are then sweated or pressure welded / fused as per customer's requirements. Such copper jumpers carry the same current as that of Busbars as they have a constant cross section over the whole length giving a nil millivolt drop. So these jumpers are a best substitute for solid busbars. Our Copper flexible jumpers are widely used in following Industries: Transformers switchgear's, power plants, Electric locomotives, furnaces, chemical plants, electricity boards & all current carrying equipment manufacturing Industries.

It is also possible to drill, saw, braze, mill & weld the contact areas without any problem. These types of flexible connectors are used as flexible expansion joints in order to connect busbars in Switchgear industries,

- Power plants,
- Caustic Soda,
- Chlorine plant using mercury Cell,
- Modular Cell,
- Membrane Cell,
- Diaphragm Cell,
- Hydrochloride Cell,
- Manganese Dioxide Cell and Cathodes Protection,
- Bus Ducts, Transformer, V.C.B.,
- Resistance welding engineering,
- In Electric Locomotives, Furnaces etc..

It is used as expansion connectors to prevent damages by other parts of machines or switchgears and to take care of thermal and dynamic stresses caused by short circuit current in the system. These jumpers have to realize movements inside machines and switchgear. **Flexible Copper Laminate jumper** is individually designed and manufactured keeping in view the user's requirement and application. We also offer jumpers with contact area electro tinned, silver or gold plated to give perfect contact.

If want to order Please mention:

Outside length (O.L), Width required (W), Thickness (less clip) (T), Hole Diameter, Type (letter shape), Hole pattern & dimensions

## **COPPER LAMINATED FLEXIBLE JUMPERS**

**FLEXIBLE LAMINATED SHUNTS** are custom designed to customer requirements and specifications and are available in any hole pattern or size. The secondary conductor strips are of High Conductivity Copper. Terminal ends can either be deep riveted or solderdipped to allow a more positive current transfer area for improved efficiency.

Copper laminated flexible shunts are manufactured by stacking several foils of Electrolytic Copper (0.035 to 0.3 mm thick) and then forging it by applying high current under high pressure. This is a special metal diffusion process whereby the metal itself melts and forms homogenous bond thus giving a very negligible, almost nil milivolt drop across the

connector, thereby reducing the temperature rise & increasing the current carrying capacity of the jumper. In this process, no filler metal is used to join layers together. They have a constant cross section over whole length. The current carrying capacity of solid bus bar and Copper laminated jumper manufactured by this process is same. Therefore these jumpers are a substitute of solid bus bar. It is also possible to drill, saw or mill the contact areas without any problem.



These type of flexible connectors are used as flexible expansion joints in order to connect bus bars in Switchgear Industries, Power Plants, Caustic Soda & Chlorine Plant using Mercury Cell, Modular Cell, Membrane Cell, Diaphragm Cell, Hydrochloride Cell, Manganese Dioxide Cell and Cathodic Protection, Bus Ducts, Transformer, V.C.B., Resistance welding equipments, Electric Locomotives, Furnaces etc. to prevent damages by other parts of machines or switchgear. These kinds of jumpers have to realize movements inside machines and switchgear. These jumpers are individually designed and manufactured keeping in view, the user requirements and application. We also offer jumpers with contact area electro-tinned, Silver plated or Gold plated to give perfect contact.

If want to order Please mention:

- Outside length (O.L),
- Width required (W),
- Thickness (less clip) (T),
- Hole Diameter,
- Type (lettershape),
- Hole pattern & dimensions Etc.

## CONDUCTORS

### Bare Copper Tape

Material - High conductivity Copper Tape to BS EN 13601 (Formerly BS1432)



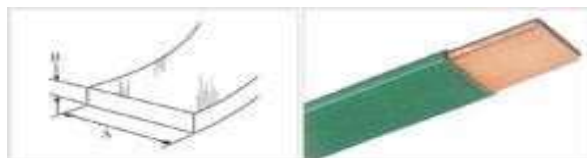
\*Add suffix "T" to the product code for "Tinned Copper Tape".

Conductor Size mm	Product Code
12.5 x1.5	E12-BCT-1215
12.5 x3	E12-BCT-1253
20 x1.5	E12-BCT-2015
20 x3	E12-BCT-203
25 x1.5	E12-BCT-2515
25 x3	E12-BCT-253
25 x4	E12-BCT-254
25 x6	E12-BCT-256
30 x3	E12-BCT-303

Conductor Size mm	Product Code
50 x6	E12-CBB-506
50 x10	E12-CBB-5010
50 x12	E12-CBB-5012
60 x5	E12-CBB-605
60 x8	E12-CBB-608
60 x10	E12-CBB-6010
75 x6	E12-CBB-756
75 x10	E12-CBB-7510
75 x12	E12-CBB-7512
80 x5	E12-CBB-805
80 x6	E12-CBB-806
80 x10	E12-CBB-8010
80 x12	E12-CBB-8012
100 x5	E12-CBB-1005
100 x6	E12-CBB-1006
100 x10	E12-CBB-1010
100 x20	E12-CBB-1020

### PVC Covered Copper Tape

Material – Electrolytic Copper



Conductor Size mm	Product Code
12.5 x1.5	E12-PCT-1215
25 x3	E12-PCT-253
25 x6	E12-PCT-256
38 x6	E12-PCT-386
50 x6	E12-PCT-506

### Bare Aluminum Tape

Material -Aluminum



Conductor Size mm	Product Code
12.5 x1.5	E12-BAT-1215
25 x3	E12-BAT-253
25 x6	E12-BAT-256
38 x6	E12-BAT-386
50 x6	E12-BAT-506

### Bare Solid Circular Conductor



Conductor	Dia.(D) mm	Cross Section Area MM2	Product Code
Bare Copper	8	50.27	E12-SOCC-8C
Bare Aluminum	8	50.27	E12-SOCC-8A
PVC Copper	8	50.27	E12-SOCC-8CC
PVC Aluminum	8	50.27	E12-SOCC-8AA



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